REMARKS

Claims 1-10, 12, and 13 are all the claims pending in the application. By this amendment, claim 11 has been canceled.

Interview

Applicant thanks the Examiner for the telephone interview with Applicant's representative John Bird on October 2, 2007, in which the pending rejections were discussed in view of proposed, amended claims.

The Examiner stated that it appears that the proposed claims define over the applied prior art. However, the Examiner also stated that further search and/or consideration is likely to be necessary.

Claim Rejection Under 35 U.S.C. § 112

Claims 3-10, 12 and 13 are rejected under 35 U.S.C. § 112, second paragraph.

Specifically, the Examiner has asserted that these claims are indefinite because the recited features of a toroidal hard core and tire structural member including bead cores are "material worked upon by the apparatus" and not structures of the apparatus itself. In response, Applicant has amended claim 3 to recite a *combination* of tire components and an apparatus for manufacturing a green tire. Applicant respectfully notes that claim 3 is a novel combination that includes an unvulcanized *thin rubber sheet member* that is both a part of the tire component and a part of the apparatus for manufacturing a green tire.

In view of the above, Applicant respectfully requests the Examiner to withdraw this rejection in view of the amendment to claim 3.

Claim Rejections Under 35 U.S.C. § 102

Claims 1 and 3-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by Haase (2,951,526).

Claims 1 and 3-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kawaida et al. (4,484,973).

Claims 3-6 and 8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ewing et al. (3,051,220).

Claim 1

As an initial matter, independent method claim 1 has been amended to recite providing an *unvulcanized thin rubber sheet member* in a radial direction at each side of a toroidal hard core; forming a carcass along an outer circumference of the toroidal hard core; and turning up integrally with the sheet member, around bead cores, inner edge portions in a radial direction of the carcass. This amendment is supported in the original specification at least by the *exemplary* embodiment shown in FIG. 5 in which the carcass 46 and rubber sheet 42 are turned up around the bead core 50. As discussed at page 13, lines 4-7, the *exemplary* rubber sheet 42 is an unvulcanized thin rubber sheet.

Applicant respectfully requests the Examiner to withdraw the rejections of claim 1 under 35 U.S.C. § 102 at least because neither Haase nor Kawaida discloses the method of manufacturing a tire of amended claim 1.

According to the rejection, the Examiner asserts that the web 35 or stitcher 38 of Haase's stitcher mechanism[1] corresponds to the recited "sheet member" and that the vane 1, disc 12, or bladder 14 of Kawaida's ply turning device[2] also corresponds to the recited "sheet member." However, none of these structures in Haase or Kawaida includes providing an unvulcanized thin rubber sheet member in a radial direction at each side of a toroidal hard core; forming a carcass along an outer circumference of the toroidal hard core; and turning up integrally with the sheet member, around bead cores, inner edge portions in a radial direction of the carcass.

Accordingly, Applicant respectfully requests the Examiner to withdraw the §102 rejections of independent claim 1.

Claim 3

Claim 3 has been amended in a manner similar to claim 1. That is, claim 3 recites a moving means that *turns up integrally with the sheet member, around the bead cores, inner edge portions in a radial direction of the carcass*. Applicant respectfully requests the Examiner to withdraw the rejections of claim 3 under 35 U.S.C. § 102 at least because none of Haase, Kawaida, or Ewing discloses the combination of amended claim 3.

As discussed above with respect to claim 1, neither Haase nor Kawaida discloses providing an unvulcanized thin rubber sheet member in a radial direction at each side of a toroidal hard core.

[1] *See* Haase at FIG. 1.

[2] *See* Kawaida at FIG. 1.

Moreover, Ewing also does not disclose the claimed combination. According to the rejection, the Examiner alleges that the sleeve 82, support ring 75, or bladder 76 of Ewing's stitcher assembly[3] corresponds to the recited "sheet member." However, like Haase and Kawaida, these features of Ewing are not *unvulcanized thin rubber sheet member*.

Accordingly, Applicant respectfully requests the Examiner to withdraw the §102 rejections of independent claim 3.

Claims 4-6 and 8

In addition, Applicant respectfully requests the Examiner to withdraw the §102 rejections of dependent claims 4-6 and 8 at least because of their dependency from claim 3.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-6, 8 and 11-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Caretta et al. (2002/0011297) taken in view of at least one of Haase and Ewing.

Claims 7, 9 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over (1) Haase or Ewing or (2) Caretta taken in view of at least one of Haase and Ewing, and further in view of Brown et al. (4,199,393) or Niclas et al. (3,223,566).

Claim 1

Applicant respectfully requests the Examiner to withdraw the rejection of claim 1 under 35 U.S.C. § 103 at least because amended claim 1 would not have been obvious in view of the combination of Caretta and Kawaida and/or Ewing.

[3] *See* Ewing at FIG. 1.

As discussed above, neither Kawaida nor Ewing discloses providing an unvulcanized thin rubber sheet member in a radial direction at each side of a toroidal hard core.

In addition, the Examiner alleges that the ribbon-like belt 12/auxiliary annular elements 12a introduced in Caretta correspond to the recited "sheet member" of claim 1. As an initial matter, Caretta does not disclose that the ribbon-like belt 12/auxiliary annular elements 12a are made of unvulcanized rubber.

Moreover, the ribbon-like belt 12/auxiliary annular elements 12a are not turned up around bead cores *integrally with the inner edge portions in a radial direction of the carcass*. Instead, the ribbon-like belt 12/auxiliary annular elements 12a are disposed side by side along the circumferential surface and follow the profile in transverse section of the toroidal support 11, while the turned back edge portions of the steel cord in the exemplary embodiment are attached at both sides of the hard core.

Applicant also notes that, in contrast to the sheet member for attaching the turned back edge portions of the steel cord of claim 1, Caretta's ribbon-like belt 12/auxiliary annular elements 12a are instead used to define an air-proof layer 10.

Therefore, the method of claim 1 would not have been obvious in view of the combination of Caretta, Hasse and Ewing.

Accordingly, Applicant respectfully requests the Examiner to withdraw the §103 rejection of independent claim 1.

Claim 2

Applicant respectfully requests the Examiner to withdraw the rejection of dependent claim 2 at least because of its dependency from claim 1 and because no combination of Caretta,

Hasse and Ewing would reasonably meet the claimed method including setting an unvulcanized rubber-coated cord on the hard core from one side surface portion to the other side surface portion of the hard core, and turning the cord back at the other side surface.

The method of dependent claim 3 relates to a tire manufacturing method and a green tire manufacturing apparatus in which a carcass is formed and the inner edge portions in the radial direction of the carcass are turned up integrally with the sheet member around the bead cores. Referring the *exemplary* embodiment, a unvulcanized rubber-coated steel cord is applied sequentially by crossing the core circumferential direction, with the cord being turned back, and attached at the external surfaces of the sheet members. The sheet members are respectively formed at each side of the toroidal hard core. Because the sheet member is an *unvulcanized thin rubber sheet* (i.e., viscous before cooling), the edge portions of the steel cord, which are turned back at both sides of the hard core, are easily attached into the sheet member. Consequently, the respective edge portion of the sheet cord can be prevented from dispersing (failing to be integrated) while being turned up around the bead cores.

In contrast, there is no combination of the applied references that would reasonably meet each of the recitations of dependent claim 2.

Claim 3

Applicant respectfully requests the Examiner to withdraw the rejection of claim 3 under 35 U.S.C. § 103 at least because amended claim 1 would not have been obvious in view of the combination of Carretta and Kawaida and/or Ewing.

As discussed above, none of Carretta, Kawaida, and Ewing discloses a moving means that *turns up integrally with the sheet member, around the bead cores, inner edge portions in a radial direction of the carcass.*

Claims 4-13

In addition, Applicant respectfully requests the Examiner to withdraw the §103 rejections of dependent claims 4-13 at least because of their dependency from claim 3.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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Date: October 4, 2007